

Amendments to the Claims

Please amend the claims as shown below. The pending claims are as follows.

1. (Currently amended) A polymerization catalyst for producing polyester, the polymerization catalyst comprising an aluminum substance and a phosphorus compound, wherein the aluminum substance is selected from the group consisting of ~~metal aluminum~~, aluminum carboxylates, aluminum salts of an inorganic acid, and aluminum chelate compounds, ~~aluminum oxides and partial hydrolyzates of an organoaluminum compound~~, and wherein the phosphorus compound has an aromatic ring structure.

2-3. (Canceled).

4. (Currently amended) A polymerization catalyst for producing polyester, the polymerization catalyst comprising an aluminum substance and at least one phosphorus compound, wherein the aluminum substance is selected from the group consisting of ~~metal aluminum~~, aluminum carboxylates, aluminum salts of an inorganic acid, and aluminum chelate compounds, ~~aluminum oxides and partial hydrolyzates of an organoaluminum compound~~, and wherein the at least one phosphorus compound is at least a phosphonic acid compound having an aromatic ring structure.

5. (Previously presented) The polymerization catalyst according to claim 1, wherein the phosphorus compound is at least one compound selected from the group consisting of the compounds represented by the following Formulae (1) to (3):

(Formula 1)



(Formula 2)



(Formula 3)



wherein R¹, R⁴, R⁵ and R⁶ independently represent hydrogen, a C₁₋₅₀ hydrocarbon group, and a C₁₋₅₀ hydrocarbon group containing a hydroxyl group, a halogen group, an alkoxy group or amino group, and R² and R³ independently represent hydrogen or a C₁₋₁₀ hydrocarbon group, wherein the hydrocarbon group may contain an alicyclic structure or an aromatic ring structure.

6. (Previously presented) The polymerization catalyst according to claim 4, wherein the at least one phosphorus compound is at least a compound represented by the formula below:



wherein R² and R³ independently represent hydrogen or a C₁₋₁₀ hydrocarbon group, wherein the hydrocarbon group may contain an alicyclic structure or an aromatic ring structure, and wherein R¹ is a group having an aromatic ring structure.

7. (Previously presented) The polymerization catalyst according to claim 1, wherein one or more metals and/or metal compounds selected from the group consisting of alkali metals or compounds thereof and alkaline earth metals or compounds thereof are coexistent therewith.

8. (Canceled).

9. (Previously presented) A process for producing polyester which comprises adding a catalyst described in claim 1 in a polycondensation reaction, esterification reaction or transesterification reaction between components comprising at least a polyfunctional alcohol and at least a polyfunctional carboxylic acid or ester-forming derivative of a polyfunctional carboxylic acid to produce the polyester.

10. (Currently amended) A polymerization catalyst for producing polyester, the polymerization catalyst comprising an aluminum substance and at least one phosphorus compound, wherein the aluminum substance is selected from the group consisting of ~~metal-aluminum~~, aluminum carboxylates, aluminum salts of an inorganic acid, and aluminum chelate compounds, ~~aluminum oxides and partial hydrolyzates of an organoaluminum compound~~, and wherein the at least one phosphorus compound is at least a phosphinic acid compound having an aromatic ring structure.

11-13. (Canceled).

14. (Previously presented) The polymerization catalyst according to claim 4, wherein one or more metals and/or metal compounds selected from the group consisting of alkali metals or compounds thereof and alkaline earth metals or compounds thereof are coexistent therewith.

15. (Previously presented) The polymerization catalyst according to claim 5, wherein one or more metals and/or metal compounds selected from the group consisting of alkali metals or compounds thereof and alkaline earth metals or compounds thereof are coexistent therewith.

16. (Previously presented) The polymerization catalyst according to claim 6, wherein one or more metals and/or metal compounds selected from the group consisting of alkali metals or compounds thereof and alkaline earth metals or compounds thereof are coexistent therewith.

17-18. (Canceled).

19. (Previously presented) A process for producing polyester which comprises adding a catalyst described in claim 5 in a polycondensation reaction, esterification reaction or transesterification reaction between components comprising at least a polyfunctional alcohol and at least a polyfunctional carboxylic acid or ester-forming derivative of a polyfunctional carboxylic acid to produce the polyester.

20. (Previously presented) A process for producing polyester which comprises adding a catalyst described in claim 7 in a polycondensation reaction, esterification reaction or transesterification reaction between components comprising at least a polyfunctional alcohol and at least a polyfunctional carboxylic acid or ester-forming derivative of a polyfunctional carboxylic acid to produce the polyester.

21. (Previously presented) The polymerization catalyst according to claim 10, wherein one or more metals and/or metal compounds selected from the group consisting of alkali metals or compounds thereof and alkaline earth metals or compounds thereof are coexistent therewith.

22-29. (Canceled).

30. (Previously presented) A process for producing polyester which comprises adding a catalyst described in claim 4 in a polycondensation reaction, esterification reaction or transesterification reaction between components comprising at least a polyfunctional alcohol and at least a polyfunctional carboxylic acid or ester-forming derivative of a polyfunctional carboxylic acid to produce the polyester.

31. (Previously presented) A process for producing polyester which comprises adding a catalyst described in claim 6 in a polycondensation reaction, esterification reaction or transesterification reaction components comprising at least a polyfunctional

alcohol and at least a polyfunctional carboxylic acid or ester-forming derivative of a polyfunctional carboxylic acid to produce the polyester.

32. (Canceled).

33. (Previously presented) A process for producing polyester which comprises adding a catalyst described in claim 14 in a polycondensation reaction, esterification reaction or transesterification reaction components comprising at least a polyfunctional alcohol and at least a polyfunctional carboxylic acid or ester-forming derivative of a polyfunctional carboxylic acid to produce the polyester.

34. (Canceled).

35. (Previously presented) A process for producing polyester which comprises adding a catalyst described in claim 16 in a polycondensation reaction, esterification reaction or transesterification reaction components comprising at least a polyfunctional alcohol and at least a polyfunctional carboxylic acid or ester-forming derivative of a polyfunctional carboxylic acid to produce the polyester.

36. (Previously presented) A process for producing polyester which comprises adding a catalyst described in claim 15 in a polycondensation reaction, esterification reaction or transesterification reaction components comprising at least a polyfunctional

alcohol and at least a polyfunctional carboxylic acid or ester-forming derivative of a polyfunctional carboxylic acid to produce the polyester.

37. (Currently amended) The polymerization catalyst according to claim 1, wherein the aluminum carboxylates are selected from aluminum formate, aluminum acetate, aluminum propionate, aluminum oxalate, aluminum acrylate, aluminum laurate, aluminum stearate, aluminum benzoate, aluminum trichloroacetate, aluminum lactate, aluminum citrate, and aluminum salicylate, wherein the aluminum salts of an inorganic acid are selected from aluminum chloride, aluminum hydroxide, aluminum hydroxide chloride, aluminum carbonate, aluminum phosphate and aluminum phosphonate, and wherein the aluminum chelate compounds are selected from aluminum acetylacetonate, aluminum acetylacetate, aluminum ethyl acetoacetate, and aluminum ethyl acetoacetate di-isopropoxide, ~~and wherein the organoaluminum compound is trimethyl aluminum or triethyl aluminum.~~

38. (Currently amended) The polymerization catalyst according to claim 4, wherein the aluminum carboxylates are selected from aluminum formate, aluminum acetate, aluminum propionate, aluminum oxalate, aluminum acrylate, aluminum laurate, aluminum stearate, aluminum benzoate, aluminum trichloroacetate, aluminum lactate, aluminum citrate, and aluminum salicylate, wherein the aluminum salts of an inorganic acid are selected from aluminum chloride, aluminum hydroxide, aluminum hydroxide chloride, aluminum carbonate, aluminum phosphate and aluminum phosphonate, and wherein the aluminum chelate compounds are selected from aluminum acetylacetonate,

aluminum acetylacacetate, aluminum ethyl acetoacetate, and aluminum ethyl acetoacetate di-isopropoxide, ~~and wherein the organoaluminum compound is trimethyl aluminum or triethyl aluminum.~~

39. (Currently amended) ~~A process~~ The polymerization catalyst according to claim 10, wherein the aluminum carboxylates are selected from aluminum formate, aluminum acetate, aluminum propionate, aluminum oxalate, aluminum acrylate, aluminum laurate, aluminum stearate, aluminum benzoate, aluminum trichloroacetate, aluminum lactate, aluminum citrate, and aluminum salicylate, wherein the aluminum salts of an inorganic acid are selected from aluminum chloride, aluminum hydroxide, aluminum hydroxide chloride, aluminum carbonate, aluminum phosphate and aluminum phosphonate, and wherein the aluminum chelate compounds are selected from aluminum acetylacetonate, aluminum acetylacacetate, aluminum ethyl acetoacetate, and aluminum ethyl acetoacetate di-isopropoxide, ~~and wherein the organoaluminum compound is trimethyl aluminum or triethyl aluminum.~~

40. (Previously presented) A process for producing polyester which comprises adding a catalyst described in claim 37 in a polycondensation reaction, esterification reaction or transesterification reaction components comprising at least a polyfunctional alcohol and at least a polyfunctional carboxylic acid or ester-forming derivative of a polyfunctional carboxylic acid to produce the polyester.

41. (Previously presented) A process for producing polyester which comprises adding a catalyst described in claim 38 in a polycondensation reaction, esterification reaction or transesterification reaction components comprising at least a polyfunctional alcohol and at least a polyfunctional carboxylic acid or ester-forming derivative of a polyfunctional carboxylic acid to produce the polyester.

42. (New) A process for producing polyester which comprises adding a catalyst described in claim 21 in a polycondensation reaction, esterification reaction or transesterification reaction components comprising at least a polyfunctional alcohol and at least a polyfunctional carboxylic acid or ester-forming derivative of a polyfunctional carboxylic acid to produce the polyester.